example at page 4, lines 11-15 and at page 7, lines 9-11. Support for Claims 41 and 42 is found in Claims 14 and 15 as filed, and in the specification at page 7, line 20 to page 8, line 3 and at page 26, lines 1-19.

No new matter is included in these claims and the Examiner is respectfully requested to enter them in the instant application.

35 U.S.C. 101

Claims 1-11 and 16-19 were rejected under 35 U.S.C 101 as being directed to non-statutory subject matter. This rejection is believed avoided in the newly presented claims which specify that the figwort mosaic virus 34S promoter is in a recombinant DNA construct.

35 U.S.C. 112

Claims 2-4, 8-10 and 13-15 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Applicants believe that the subject matter of the invention is clarified in the newly presented claims. Although the position of the TATTTAA site is not stated, the claims clarify that the "TATA box" of the subject promoter has the sequence TATTTAA The term "TATA box" is well known to those in the art and the specification clearly describes the TATTTAA sequence as the "TATA box". See, for example, page 18, lines 1-2 and Figure 1. With respect to the orientation of the elements of Claims 13-15, no orientation of the CaMV 35S cassette to the figwort

mosaic 34S cassette was intended, as is clarified in new Claim 34.

35 U.S.C. 102

Claims 1-11 and 16 were rejected under 35 U.S.C. 102(a) as anticipated by each of Gowda *et al.* and Wu *et al.*, and Claims 1-11 and 16-17 were rejected under 35 U.S.C. 102(a) as anticipated by Goldberg *et al.*

Applicants provide herein a Declaration under 37 C.F.R 1.131 by Margaret Sanger which demonstrates that Applicants had produced the figwort mosaic virus 34S promoter constructs and plant cells comprising these constructs, prior to November 13, 1988, the earliest date of any of these references. A separate page is attached which demonstrates that the APS meetings at which the Wu *et al.*, and Goldberg *et al.*, abstracts were published, were held on November 13-17, 1988.

The enclosed Declaration notwithstanding, Applicants note that Goldberg *et al.* is directed to a figwort mosaic virus gene VI promoter (analogous to the CaMV 19S promoter) and does not anticipate claims to a figwort mosaic virus 34S (full-length) promoter. Applicants respectfully request that the rejections under 35 U.S.C. 102(a) be withdrawn.

Claims 1-11 and 16-19 were rejected under 35 U.S.C. 102(b) as anticipated by Shepherd *et al.* and Claims 1-11 were rejected under 35 U.S.C. 102(b) as anticipated by Richins *et al.* These rejections are respectfully traversed as follows.

Prior art anticipates a claim only if every element recited in the claim is disclosed in a single item of prior art. Neither Shepherd *et al.* nor Richins *et al.* fulfills this requirement of an anticipatory reference for the invention as presently claimed.

The current claims are directed to recombinant DNA constructs which comprise a figwort mosaic virus promoter and a DNA sequence of interest under the transcriptional regulation of said promoter. There is no disclosure of such constructs in Shepherd *et al.* This reference describes figwort mosaic virus properties and characterization, including transmission studies and genome analysis. There is no discussion of a 34S transcript or a promoter that would provide for such a transcript. In fact, the only figwort promoter mentioned is that for gene VI. As discussed above, the gene VI promoter is analogous to the CaMV 19S promoter and is not the subject matter of the instant invention.

Richins *et al.* presents nucleic acid sequence and open reading frame analysis of a figwort mosaic virus and makes comparisons to other members of the caulimovirus group, such as CaMV. Again, there is no disclosure of recombinant DNA constructs comprising a figwort mosaic virus promoter and a DNA sequence of interest in this reference. Although Richins speculates as to the location of figwort mosaic virus promoters based on observed similarities with CaMV, no transcript analysis is conducted to determine the number and size of the transcripts produced by this virus. Thus,

Richins does not provide the figwort mosaic virus full length promoter constructs of the instant invention.

In view of the above, Applicants respectfully request that the rejections under 35 U.S.C. 102(b) be withdrawn.

35 U.S.C. 103

Claims 1-19 were rejected under 35 U.S.C. 103 over Shah *et al.* and Sanders *et al.* taken with either Richins *et al.* or Gowda *et al.* or Wu *et al.* or Goldberg *et al.* The Gowda *et al.*, Wu *et al.* and Goldberg *et al.* references are removed from consideration in view of the above Declaration under 37 C.F.R. 1.131. The rejection over Shah *et al.* and Sanders *et al.* taken with Richins *et al.* is respectfully traversed as follows.

Shah *et al.* describe DNA constructs for expression of EPSPS gene sequences in plant cells. As noted in the Office Action, this reference does not teach or suggest the figwort mosaic virus 34S promoter of the instant invention. In fact, this reference describes CaMV 35S promoters and refers to the strength of this promoter in plant cells (Column 3, lines 45-60). Rather than teaching that other similar promoters may also be desirable, this reference suggests that the CaMV 35S promoter may require modification in order to decrease the expression levels in plant cells.

Sanders *et al.* compares the strength of CaMV 35S and nopaline synthase (nos) promoters in leaves from transgenic plants and discusses the higher level of expression obtained

with the 35S promoter. There is no teaching or suggestion that similar high levels of expression may be obtained with a figwort mosaic virus 34S promoter.

Richins *et al.* speculates as to the location of figwort mosaic virus promoters, but provides no convincing evidence of the effectiveness or utility of the figwort mosaic virus 34S promoter of the instant invention, such as is obtained by demonstrating function of the putative promoter region in chimeric gene constructs. Furthermore, Richins states that the DNA sequence alignment which suggests the location of a figwort promoter in the large intergenic region was a subjective choice, and that other TATA-like sequences are observed in this region (page 8464, second paragraph). Moreover, the homology to CaMV sequences noted by the authors (Figure 5, page 8460) is most prominent in a region downstream of the proposed figwort promoter. Thus, this reference does not teach the figwort mosaic virus 34S promoter of the instant invention, and at most would suggest that one of ordinary skill in the art might wish to further examine the figwort mosaic virus intergenic regions for promoter activity.

The above notwithstanding, Applicants disclosure reveals that unexpected results are obtained in plant cells transformed with constructs comprising the figwort mosaic virus 34S promoter. Importantly, the level of expression obtained with the FwMV 34S promoter is comparable to that observed with the CaMV 35S promoter. The enclosed reference,

Benfey *et al.* describes the upstream CaMV 35 enhancer regions responsible for the high levels of expression. As described in the instant application, the FwMV 34S and CaMV 35S promoters demonstrate less than 50% homology those regions known to be responsible for the strength of the CaMV 35S promoter. Thus, it was unexpected that the FwMV 34S promoter would provide similar high levels of expression as seen with a CaMV 35S promoter, and none of the available references teaches or suggests that such high expression levels could be obtained. Applicants note that the Wu *et al.* reference cited by the Patent Office as providing a reasonable expectation of success is not available in view of the enclosed Declaration under 37 C.F.R. 1.131.

A second unexpected result with the figwort mosaic virus promoter is the relatively uniform expression that is obtained in root, leaf, stem and floral tissues. This is in contrast to the organ and tissue specificity of expression that has been reported with CaMV 35S promoter constructs. (See, for example the enclosed Teeri *et al.* and Ow *et al.* references.) Thus, the figwort mosaic virus 34S promoter of this invention may be used to provide for constitutive transcription or expression of a DNA sequence of interest in plants, as stated in new Claims 39 and 40.

In the instant application the high expression obtainable with a figwort mosaic virus 34S promoter and the special utility of such a promoter in providing for constitutive expression in plant tissues is described.

Further, the regions of the figwort mosaic virus which are useful to give such expression are provided. Applicants submit that such figwort mosaic virus constructs of the instant invention are not obvious over the combination of Shah *et al.* and Sanders *et al.* taken with Richins *et al.*, and respectfully request that this rejection be withdrawn.

Conclusion

In view of the above Amendments and remarks, it is respectfully submitted that this application is now in condition for allowance. Early notice to this effect is solicited.

If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (916) 753-6313.

Respectfully submitted,

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enclosures: Abstracts of Presentations
Declaration